telecommunications services and products and otherwise meet the intent and policies of the Act?

NJ Bell argues that the plan itself will support economic development because, "[b]esides providing for affordable rates, the Plan gives businesses predictability of rates to allow for their economic investment" (NJBb18; P-2, at 18; P-4, at 7; T1953 to T1954). Additionally, the plan, according to NJ Bell, gives it "the incentives to offer and market new services and to improve the marketing of existing services" (NJBb18; T1952 to T1953). NJ Bell argues that even without Opportunity New Jersey, the plan satisfies the statutory criterion of enhancing economic development through the combination of providing NJ Bell with "incentives to meet customers' needs, and affording customers the stability and predictability of telecommunications services prices to make long range plans" (NJBb18; P-2, at 18; P-59, at 6).

Beyond the plan itself, NJ Bell argues that economic development will be enhanced by its commitment, upon Board approval of the plan and during its effect, to accelerate network development through ONJ (NJBb18; Plan, at 1 n.3; P-3). Presently, NJ Bell's public switched network transports voiceband services (voice, facsimile and low speed data). ONJ represents NJ Bell's plan to accelerate the deployment of advanced switching and transmission technologies to make available advanced intelligent network, narrowband digital, wideband digital, and broadband digital service capabilities in the public switched network, which will result in a public switched network that is capable of transporting video and high speed data services in addition to voiceband services (P-3, at 3).

NJ Bell's additional investment to accelerate the deployment of advanced transport and switching equipment is estimated by NJ Bell to be approximately $1.5 billion from 1992 through 1999. This is an acceleration beyond those monies that would have been spent for network improvements as part of the business as usual case (BAU). As described by NJ Bell, the following four fundamental service capabilities, the supporting technologies, and potential service applications define the ONJ network acceleration plan (P-3, at 1-2; S-17, at 2):

		BAU	ONJ
Advanced Intelligent Network (AIN):			
	Initial:	1992	1992
	100%:	2001	1998

Digital switching and signaling systems deployed to provide call routing and database access services, which enables "follow me" type services, for example, that allow customers to program the

public switched network to forward their calls automatically to different locations depending on the time of day.

Narrowband Digital Service:	Initial: 100%:	1992 after 2001	1992 1998

Switching technologies matched with transmission capabilities to support data rates up to 144,000 bits per second which enables services, for example, that will meet the requirements of customers who use any combination of work stations, personal computers, FAX machines and telephones.

Wideband Digital Service:	Initial: 95%:	1994 undetermined but before 2030	1994 2000

Switching technologies matched with transmsision capabilities to support data rates up to 1,500,000 bits per second, which enables services, for example, that will allow students to remotely access multimedia information, including video, from home or school.

Broadband Digital Service:	Initial: 100%:	1996 2030	1996 2010

Switching technologies matched with transmission capabilities support data rates up to 45,000,000 bits per second and higher, which enables services, for example, that will allow residential and business customers to receive high definition video and to send and receive interactive (i.e., two way) video signals.

The approximate incremental annual expenditure to make the above services available above the business as usual case is as follows (with amounts stated in millions):

Year	BAU (S-1, at 27)	ONJ (S-1, at 26)
1992	$464	$ 40
1993	450	108

1994	454	127
1995	448	180
1996	465	205
1997	484	233
1998	525	290
1999	576	279

NJ Bell's witness Doherty points to the New Jersey Telecommunications Infrastructure Study (Study), commissioned by the Board and conducted by the consulting firm of Deloitte & Touche and completed in January 1991, as recognizing the positive effects of advanced and affordable telecommunications services on economic development in New Jersey (P-2, at 18; S-18). He further cites to testimony of the Study's project director L.C. Mitchell, presented at a December 10, 1991 meeting of the New Jersey State Senate Transportation and Public Utilities Committee regarding Senate Bill No. 3617 (See NJCTA-1-0099; NJCTA-1-0100), wherein Mr. Mitchell described that the Study found that:

> the role of telecommunications in economic development, business attraction and business retention indicates that the availability of telecommunications services is one of the ten most important considerations in business location decisions around the country. However, in New Jersey, the availability of telecommunications services is one of the five most important factors in the decision-making process for businesses which moved to New Jersey in the last couple of years [P-2, at 18-19; See also NJBb21; S-18, at V-115; NJCTA-1-0100].

Mr. Doherty opined that as New Jersey competes for economic development opportunities and the economy becomes more information and telecommunications intensive, the issues of availability and price of telecommunications services become even more critical in retaining and attracting information age businesses (P-2, at 19).

In an effort to quantify the enhancement of economic development as a result of ONJ, NJ Bell retained DRI/McGraw Hill's (DRI) Telecommunications Consulting Group. An analysis was performed at the direction of Dr. Francis Cronin, who presented testimony on the study and its underlying models (P-5; P-57). The study involved an input - output analysis, which Dr. Cronin testified has been an accepted economic analysis tool for over 40 years and is widely used in government public policy research (P-57, at 7).

The results of the analysis presented by Dr. Cronin indicate a positive economic impact of ONJ on New Jersey's economy resultant from increased construction activity, as well as from improved production efficiencies in New Jersey industries induced by the enhanced capabilities of the network. The construction activity, which is the actual physical process of building the network, requires a

Opportunity New Jersey, 1993, Board of Public Utilities

Verizon, New Jersey 2000 Infrastructure Report --- 52% was completed by 2000 with a broadband service capabile of 45 Mbps or higher. The W/O" stands for without Opportunity new Jersey there would be no serious deployment of a 45 Mbps service.

APPENDIX B

Service Capability & Enabling Technology Deployment

I. Opportunity New Jersey's Service Capabilities	1996	1997	1998	1999	2000	Commitments
Wideband (144 kbps to 1.5 mbps)						
w/o acceleration (est)	41%	50%	62%	71%	n/a	none
with acceleration (act)	50%	66%	78%	84%	95%	95% 2000
Broadband (up to 45 mbps & higher)						
w/o acceleration (est)	1%	1%	3%	9%	n/a	none
with acceleration (act)	19%	34%	35%	42%	52%	100% 2010

This excerpt is from the timeline for deployment in the law. 100% completed by 2010, starting in 1996 and 2030 would be the year the 45 mbps service would have been deployed without the financial incentives.

Broadband Digital Service: Initial: 1996 1996
100%: 2030 2010

Switching technologies matched with transmission capabilities support data rates up to 45,000,000 bits per second and higher, which enables services, for example, that will allow residential and business customers to receive high definition video and to send and receive interactive (i.e., two way) video signals.